

Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application and annexed to the International Preliminary Examination Report:

1.(currently amended) A device for processing (30) information in a database (5), comprising:

- means for the ~~automatic~~ selection (31) of data of the database (5) according to selection criteria,

- and means for ~~automatically~~ arranging (32) ~~saidthe~~ selected data in a representation space (40) provided for the attention of at least one user, ~~saidthe~~ space (40) comprising a plurality of positions which can receive elements that are representative of the data,

~~characterized in that~~ wherein it comprises:

means for pre-defining (33) at least one related representation area (~~A, A'~~) within ~~saidthe~~ representation space (40), formed by activated positions, ~~saidthe representation space including at least one complementary area (CA) having no data representation, formed by deactivated positions,~~

means for specifying (34) at least one data bootstrapping element for each of ~~saidthe~~ related areas (~~A, A'~~),

means for positioning (35) ~~saidthe~~ bootstrapping element at a bootstrapping position (~~P, P'~~) in ~~saidthe~~ related area (~~A, A'~~) corresponding to ~~saidthe~~ element,

means for ~~automatically and~~ successively determining (36) new data elements from at least a the data element[~~s~~] already positioned in ~~saidthe~~ related area (~~A, A'~~), in accordance with at least one proximity order relation based on contents of ~~saidthe~~ data,

and means for automatically and successively positioning (37) ~~saidof~~ at least a part of the new data elements in ~~saidthe~~ related area (~~A, A'~~), at positions neighboring the positions occupied by the data elements already positioned, if these positions not be already occupied by elements already positioned.

said selection means (31) including the initial specification (34) and successive determination (36) means, and ~~saidthe~~ arrangement means (32) including the predefinition (33), bootstrapping element positioning (35) and successive positioning (37) means.

2. (currently amended) The information processing device (30) as claimed in claim 1, ~~characterized in that wherein said~~the successive determination (36) and successive positioning (37) means are provided to form neighborhood cards (NEIGH2) centered on ~~said~~the elements already positioned, each of ~~said~~the neighborhood cards (NEIGH2) centered on one of ~~said~~the elements (Fi) already positioned giving elements neighboring ~~said~~the element in accordance with ~~said~~the proximity order relation, and to select ~~said~~the new elements from ~~said~~the neighboring elements and to place them in ~~said~~the related area (A2) corresponding to ~~said~~the element (Fi) already positioned at positions neighboring ~~said~~the element.

3. (currently amended) The information processing device (30) as claimed in claim 2, ~~characterized in that wherein said~~the successive determination (36) and successive positioning (37) means are provided to place ~~said~~the neighboring elements at positions relative to ~~said~~the element (Fi) in ~~said~~the related area (A2), which correspond to the positions relative to ~~said~~the element (Fi) of ~~said~~the neighboring elements in ~~said~~the neighborhood card (NEIGH2).

4. (currently amended) The information processing device (30) as claimed in claim[s] 2 or 3, ~~characterized in that wherein said~~the successive determination (36) and successive positioning (37) means are provided to supply ~~said~~the neighborhood cards (NEIGH) to representation means (11) for the attention of ~~said~~the user.

5. (currently amended) The information processing device (30) as claimed in claim 1 ~~any one of the preceding claims, characterized in that wherein~~ ~~said~~the successive determination means (36) are provided to exclude from the new data elements, ~~said~~the data elements already positioned, so as to represent, at the most once, each of ~~said~~the data elements in ~~said~~the representation space (40).

6. (currently amended) The information processing device (30) as claimed in claim 1 ~~any one of the preceding claims, characterized in that wherein~~ said the successive determination (36) and successive positioning (37) means are provided to determine and position said the new elements as and when there are selections by said the user, in said the representation space (40), of positions neighboring said the positions occupied by the data elements already positioned.
7. (currently amended) The information processing device (30) as claimed in claim 1 ~~any one of the preceding claims, characterized in that wherein~~ said the successive determination means (36) are intended to use, for the proximity order relation, at least one of the relations based on: a number of identical terms in said the contents, a number of similar terms for a predefined part of said the contents, a difference in dates in said the contents, a number of similar graphic patterns in said the contents, and a number of similar sound patterns in said the contents.
8. (currently amended) The information processing device (30) as claimed in claim 1 ~~any one of the preceding claims, characterized in that wherein~~ said the initial specification means (34) are provided to specify ~~said~~ bootstrapping element according to a user profile.
9. (currently amended) The information processing device (30) as claimed in claim 1 ~~any one of the preceding claims, characterized in that wherein~~ the means for pre-defining (33) said the related area (A, A') are provided to allow ~~said~~ a user to construct said the related area.
10. (currently amended) The information processing device (30) as claimed in claim 1 ~~any one of the preceding claims, characterized in that wherein~~ the initial specification means (34) are provided, in case of definition of several related areas (A, A') by the predefinition means (33), to specify a first data bootstrapping element in one of said the related areas, then to specify the other bootstrapping elements from the first bootstrapping element by means of said the proximity order relation.

11. (currently amended) An audiovisual apparatus (~~MAST, SLAV~~), ~~characterized in that~~ wherein it comprises a processing device (~~30~~) in accordance with ~~the any one of claim[s] 1 [~~40~~]~~, ~~said~~the apparatus being preferentially chosen from a television set, a personal digital assistant and a personal computer.

12. (currently amended) A method for processing information in a database (~~5~~), comprising the following steps:

- ~~automatic~~ selection of data from the database (~~5~~) according to selection criteria,
- and ~~automatic~~ arrangement of ~~said~~the selected data, in a representation space (~~40~~) provided for the attention of at least one user, ~~said~~the space (~~40~~) comprising a plurality of positions that can receive elements that are representative of the data,

~~characterized in that~~ wherein it comprises the steps of:

- pre-defining at least one representation related area (~~A, A'~~) within ~~said~~the representation space (~~40~~), formed by activated positions, ~~said~~the ~~representation space comprising at least one complementary area (CA) at said the related area without data representation, formed by deactivated positions,~~
- specifying at least one data bootstrapping element for each of ~~said~~the related areas (~~A, A'~~),
- positioning ~~said~~the bootstrapping element at a bootstrapping position (~~P, P'~~) in ~~said~~the related area (~~A, A'~~) corresponding to ~~said~~the element,
- ~~automatically and~~ successively determining new data elements from at least a data element[s] already positioned in said the related area (A, A'), in accordance with at least one proximity order relation based on contents of said the data,
- and ~~automatically and~~ successively positioning ~~said~~of at least a part of new data elements in ~~said~~the related area (~~A, A'~~) at positions neighboring the positions occupied by the data elements already positioned, if these positions not be already occupied by elements already positioned,

said selection step including the initial specification and successive determination steps, and ~~said~~the arrangement step including the predefinition, bootstrapping element positioning and successive positioning steps
~~, said information processing method being preferentially implemented by means of an information processing device (30) in accordance with any one of claims 1-10.~~

13. (currently amended) A computer program product, ~~characterized in that~~
wherein it comprises program code instructions for the execution of the steps of the method as claimed in claim 12 when ~~said~~the program is executed on a computer.